There are several differences between the 1978 and 1980 data for North Carolina that are larger than 20 percent. The discharge rate for infective and parasitic diseases declined drastically, and this is due primarily to a very large number of diagnoses of gastroenteritis and colitis recorded in October 1978, which may not be representative of the entire year. The rate for heart disease increased by 21 percent, the rate for chronic lung disease increased by 40 percent, and the rate for diseases of the digestive system increased by 21 percent. There are, however, too many confounding factors to definitely conclude from these data that these are trends. The total discharge rate showed no change from 1978 to 1980. In general, the rates based on October correspond to the 1980 figures in magnitude, validating the 1980 data and suggesting that October is not a bad month for estimating annual hospital utilization, if only one month must be chosen.

Table 5 presents discharge rates for selected types of surgery, and total surgery rates for different demographic groups, comparing North Carolina to the United States for 1980. For the specific procedures, only those that are performed almost entirely in an inpatient setting were chosen, to avoid problems of comparison due to inpatient/outpatient mix. A discharge was counted as having a certain type of surgery if the surgery code appeared in any position of the procedure-code field of the medical record, not just under principal procedure. Again, the U.S. data involve some sampling error, on the order of plus or minus 6-8 percent. In general, the rate of inpatient surgery is higher in the United States as a whole than in North Carolina. North Carolina residents show higher rates of surgery for hysterectomy (17 percent higher), appendectomy (15 percent higher), and total surgery in the age 65+ category (10 percent higher). The United States surgery rate is 8 percent higher than North Carolina's in the 15-44 age category, which includes obstetrical procedures. A higher rate of discharges with obstetrical procedures in the United States is suggested by the Cesarean section rates, where the United States rate is 25 percent higher than that for North Carolina. The total surgery rate for the United States is 3.8 percent higher than that for North Carolina, while the total discharge rate (Table 4) is 13.2 percent higher. This results in a higher percent of discharges with surgery in North Carolina, 49 percent compared to 45 percent for the United States.

The higher rate of utilization of hospitals in the United States, as reflected in Table 4, which exists across age, race, sex, and diagnostic groups, raises some questions, since overall age-adjusted mortality is higher in North Carolina (6) and some data suggest higher general morbidity in North Carolina as well (7). It is possible that lower hospital utilization in North Carolina results in higher mortality because needed medical services are not received by some. More likely is that differences in social and economic factors and in physician practices result in a higher rate of utilization in other areas of the country for a given level of need. This question of how need is translated into demand for hospital services warrants further investigation.

Medicare and Medicaid Utilization by County for Selected Diagnoses

A subset of patients with principal payment sources of Medicare or Medicaid was selected to produce the tables in this and the next sections. For a few hospitals that had problems with the payment source indicators or procedure coding, the PSRO data from the Health Care Financing Administration were substituted for their PAS data or computer tape. Data from HCFA for North Carolina resident Medicare and Medicaid patients going to hospitals in South Carolina and Virginia were added to complete the information for residents of